

2. STUDY METHODOLOGY

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This chapter presents a summary of the 2001 National Survey of Veterans (NSV 2001) study methodology. The chapter begins with a recounting of steps taken and issues addressed during development of the NSV 2001 survey instrument. Following this section on questionnaire development, survey sample design, survey administration, and survey yields are briefly reviewed.

2.1 Questionnaire Development

The NSV 2001 was designed to collect information to help the U.S. Department of Veterans Affairs (VA) respond to many of its policy, planning, and budgetary challenges. Many of these challenges were included in questionnaire design considerations from the start of this project. To further ensure that the NSV 2001 would be useful to a large, diverse group of stakeholders, the 1992 NSV instrument and results of the 1992 National Survey of Veterans Utilization Study¹ were reviewed before formally beginning questionnaire construction. In the last phase of development results of the Utilization Study were integrated into the existing design of the proposed NSV 2001 instrument and sampling methodology.

The 1992 National Survey of Veterans Utilization Study, conducted in 1999, was designed to identify the uses to which stakeholders, both inside and outside VA, utilized previous NSV results and allow them to articulate their anticipated information needs from a future NSV. For the study, a total of 51 interviews were conducted among a diverse group of stakeholders. One major finding of the study was that while the 1992 survey included many important and useful questions, the 1992 instrument did contain serious gaps and did not provide some information important to VA planners. Nonetheless, despite shortcomings, the general pattern of interview responses revealed that current users of the information would likely continue to use the results provided by a new NSV.

¹ See 1992 National Survey of Veterans Utilization Study (Westat, 1999), for more detailed information about study methodology and results.

Both internal and external VA stakeholders requested more detailed information on service patterns for special subpopulations to ensure fairness of service delivery and to meet special needs. For example, stakeholders wanted more information on minority, female, and homeless veterans, as well as other special subpopulations, such as veterans exposed to Agent Orange in Vietnam or veterans who served in the Gulf War. Another primary finding was strong support for a survey effort to collect data that would allow analysts to distinguish between those veterans who do and do not currently use VA programs. Many of the stakeholders interviewed noted an increased need for information that could be used to plan, manage, and evaluate programs. Although many of the organizations have their own survey efforts focused on their program offerings, all VA organizations indicated a desire for information on veterans who do not use VA programs as a part of their overall planning, policy, and evaluation efforts.

Based on the 1992 NSV Utilization Study, several structural and content changes were made to the survey instrument to address VA's needs and to increase the usability of the next NSV. As in previous administrations, the final NSV 2001 instrument collected information about each veteran's military background and sociodemographic characteristics. The survey also asked about veterans' perception of need and recent use of six benefit areas:

- Health Care;
- Disability;
- Mortgage Loan;
- Life Insurance;
- Education and Training; and
- Burial Benefits.

Additional survey topics collected data on other sources of assistance veterans used, access and barriers to use of the service, veterans' unmet needs, future plans to use benefit programs, and how veterans prefer to receive information about the service. Finally, the NSV 2001 included a separate module about veterans' recent need for VA information, preferred media, and access to and use of the Internet.

The survey design phase, which began in September of 2000, also resulted in the adoption of several key survey design features:

- Use of telephone interviewing as the data collection mode;

- Use of CATI technology for questionnaire administration; and
- Use of a dual frame sample design that augmented a random digit dialing (RDD) sample with a VA List Sample.

2.2 Sample Design

The NSV 2001 target population includes veterans living in private households in the U.S. and Puerto Rico. Thus, institutionalized veterans, homeless veterans, and veterans living outside the U.S. and Puerto Rico are not covered in the survey. Additionally, the survey was also required to provide information on veteran population subgroups of particular interest. These subgroups included: the veteran population classified according to the mandatory health care enrollment group (groups 1 through 6) criteria², female veterans, African American veterans, and Hispanic veterans. The precision required for survey estimates for the total population and each of the subgroups of interest was a 95 percent confidence interval of +/- 5 percent or less.

Sample design decisions were largely driven by the requirement for precise survey estimates for each of the mandatory and one discretionary health care enrollment groups. A dual frame design was adopted as a method for meeting these requirements. Some enrollment groups could be relatively easily located in the general adult population. For these groups, use of an RDD sample frame was an efficient approach. Other enrollment groups could be more efficiently contacted using a list frame where the list was constructed from the VHA Healthcare enrollment file and the VBA Compensation and Pension (C&P) file. The major design issue was determining the relative sample allocations from the RDD and list frames. Appendix B details the issues associated with sample allocation.

To meet the variety of sample objectives and precision requirements, a dual frame sampling plan was developed that called for the completion of 13,000 veteran interviews from randomly selected households (the RDD Sample). This was augmented by 7,000 veteran interviews completed from a List Sample selected from two VA administrative files. By completing 20,000 veteran interviews from these two samples, NSV 2001 provides national estimates for veterans overall and for important subgroups.

2.3 Survey Administration

Survey administration includes the conduct of the survey pretest, interviewer training and quality control, and the actual survey data collection.

² The NSV 2001 actually provides data on the population of enrollees plus potential enrollees classified by enrollment group criteria. Since the question, "Are you enrolled in VA healthcare" was not asked on the NSV 2001 we cannot distinguish between responses of healthcare enrollees or non-enrollees.

NSV Pretest

Prior to initiating survey administration, an extensive survey pretest was conducted. This was done to thoroughly test all survey components. The NSV 2001 pretest was conducted between February 12, 2001 and March 4, 2001. At that time, the List Sample contact procedures were still in development, so the pretest was administered using only RDD sample cases. During the pretest, interviewers called 21,609 telephone numbers and completed a total of 519 interviews with veterans. This three-week period allowed evaluation of every facet of survey administration.

Information gained from the pretest was used to evaluate:

- Questionnaire design, content, wording, and structure;
- Length of interview administration;
- The functioning of the computerized CATI questionnaire and CATI case management and call scheduling software;
- Interviewer training; and
- The interviewing process itself.

The pretest revealed that the CATI instrument/program worked as intended (e.g., questions were presented as intended and skip patterns were followed). Additionally, no problems were found with the CATI system's call scheduling, case management, or data storage functions. However, the pretest did yield useful changes. First, modifications were made to initial sample yield assumptions to reflect actual completion rates realized during the pretest. It was also learned from the pretest that the average length of the interview was over the target administrative length of 30 minutes. Finally, interviewer training curriculum was changed to increase focus on one area that presented difficulties for interviewers and respondents during the pretest – correctly identifying current household members. An additional benefit of the pretest was that it afforded VA an excellent opportunity to observe the methodologies and procedures planned for the main data collection phase.

Interviewer Training and Quality Control

Interviewer recruitment began in January of 2001 and continued as the data collection requirements for NSV increased. Project-specific training for the NSV 2001 began on

February 10, 2001 with an initial group of 31 interviewers. In the 5 months following the first training session, another 267 interviewers were trained in ten separate sessions, bringing the total number of NSV 2001 interviewers trained to 298. After production was underway, additional training sessions were conducted on special topics, such as:

- Proxy interviewing;
- Refusal conversion;
- Tracing calls; and
- Language problem cases.

Interviewers selected to participate in these special sessions were observed by supervisors to possess skills relevant for the operation for which they were trained.

During data collection, the primary method of ensuring that interviewers continued to accurately administer the NSV 2001 questionnaire was through interviewer monitoring. Project staff and telephone center supervisors monitored an average of 8 percent of all NSV 2001 interviews.

Data Collection

The NSV 2001 survey administration was a complex undertaking. Incorporated into the survey task were screening requirements designed to establish respondent eligibility followed by a questionnaire that contained skip patterns and required the performance of range, logic, and consistency checks during the course of survey administration. To facilitate data collection, the NSV 2001 survey was administered using a computer-assisted telephone interviewing (CATI) system. The CATI system automated all operations thereby allowing interviewers to concentrate upon only the questions to be asked and the coding of responses provided by the veteran. The selection of questions to be asked, given skip patterns, their order, and the performance of range, logic, and consistency checks were all performed by CATI in the background.

The CATI system also managed the scheduling of calls to members of the NSV sample. Initial contact with a sample member was managed using the method of “time slicing.” This method scheduled initial calls in a rotation including daytime, evening, weekday, and weekend contact attempts to maximize the probability of contact. Once contact was established

with a sample member, the CATI system kept track of the member's status (whether eligible or ineligible for the survey) and scheduled call-backs at appointed times, if necessary, to complete the interviewing process.

To increase response rates, several special data collection operations were implemented. All List Sample veterans were sent an advance letter to inform them of their selection to participate in the survey. This letter explained the survey's purpose, urged veterans to cooperate and complete a survey, and established the survey as a valid project of the U.S. Department of Veterans Affairs. Veterans were also provided a toll-free number they could call to voice any questions or concerns they might have. Other mail operations included the mailing of a background letter to RDD Sample cases requesting a written explanation of the survey before proceeding. Additionally, a proportion of veterans initially refusing to participate in the survey were sent letters (where valid addresses were available) requesting their cooperation in the survey effort.

The NSV 2001 data collection period extended from February 12, 2001 through November 12, 2001. Nearly 300 interviewers participated in the data collection phase, which resulted in 20,048 completed interviews (12,956 from the RDD Sample and 7,092 from the List Sample). The average interview time for RDD Sample veterans was 33.3 minutes, while List Sample veterans took an average of 38.7 minutes per completed interview. It was expected that List Sample veterans would take longer to complete the interview because they generally have more medical conditions and medical treatment experiences to report. List Sample veterans were also more likely to have a service-connected disability that required them to complete an additional survey module about that disability.

2.4 Survey Yields

The NSV 2001 had a total sample target of 20,000 completed interviews. Of this total, 13,000 were expected to come from the household screening of RDD telephone numbers and 7,000 from the List Sample. At the completion of survey administration, NSV 2001 realized 100.2 percent of the overall target by completing 12,956 interviews from the RDD Sample (99.7 percent of goal) and 7,092 interviews from the List Sample (101.3 percent of goal).

As part of the NSV 2001 sample design, interview completion targets were also set by sample stratum for both the List and RDD Samples. The main objective of the List Sample

stratification was to augment the sample for the veteran population classified according to the mandatory health care enrollment priority group (groups 1 through 6) criteria and for female veterans. List Sample interview targets were also set for Hispanic and African American veterans. Both List and RDD Sample size targets were set in line with the distribution of the veteran population (by subgroup) provided by VA. Table 2-1 (List Sample) and Table 2-2 (RDD Sample) compare the target and achieved List Sample completed interviews by priority groups

Table 2-1. Target versus achieved List Sample completed interviews by priority group

Priority	Target	Achieved	Percent of target
1	1,239	1,410	113.8
2	1,200	1,354	112.8
3	1,636	1,758	107.5
4	931	549	59.0
5	1,231	1,179	95.8
6	763	842	110.4
Total list	7,000	7,092	101.3

Table 2-2. Target versus achieved RDD Sample completed interviews by priority group (Observed)

Observed Priority	Target	Achieved	Percent of target
1	295	371	125.8
2	271	300	110.7
3	661	741	112.1
4	69	12	17.4
5	3,731	2,636	70.7
6	36	1,479	4,108.3
7	7,937	7,417	93.4
Total RDD	13,000	12,956	99.7

List Sample

Targets were exceeded for four of the six priority groups. The two groups falling short were priority group 5 (96 percent of target), and priority group 4 (59 percent of target). A review of survey yields reveals that the original expectations for this group underestimated the proportion of priority group 4 veterans that would be ineligible due to institutionalization or death. The proportion ineligible among the priority group 4 veterans was 30.9 percent, whereas fewer than 5 percent of veterans in priority groups 2, 3 and 6 were ineligible, and just over 7 percent of priority groups 1 and 5 veterans were ineligible.

RDD Sample

For the RDD Sample, a target of 662 completed female veteran interviews was set and 699 interviews were completed (105.6 percent of target). The targets for African American and Hispanic veterans were 1,066 and 520 interviews, respectively. A total of 983 interviews were completed with African American veterans (92.2 percent of target), and 558 interviews with Hispanic veterans (107.3 percent of the target).

Table 2-2 shows that, although we met the overall target for the RDD Sample, the individual priority groups varied considerably. According to the veteran population distribution used for the NSV 2001 sample design, the two smallest priority groups were groups 4 and 6. However, the number of veterans in priority group 4 turned out to be only a fraction (14.5 percent) of what we projected from our assumed distribution. Conversely, the number of veterans belonging to priority group 6 was almost 40 times greater than expected given the population distribution provided by VA. This is partially due to the fact that the absolute numbers for the RDD targets for priority groups 4 and 6 were also very low, which led to large percentage differences. Also, for Priority 6 the definition for the target population was slightly different than what was used to count the achieved number. Data used to estimate the target population was only available for veterans using VA facilities solely for treatment of environmental exposures, whereas the observed population considered anyone stating they had been exposed to environmental hazards regardless of treatment. The RDD Sample completed interviews for priority group 5 also fell significantly short, at just over 60 percent of the target.